

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for executing a ~~file system statement in the context of a transaction~~ comprising at least one query language statement and at least one file system statement, each statement relating to a user defined type ("UDT") associated with a database server, the method comprising:

receiving each of the at least one file system statements, wherein each statement comprises~~[[ing]]~~ a call to open an item~~[[,]]~~ and at least one of a call to read from the item~~[[or]]~~ and to write to the item, and a call to close the item, the file system statement being independent of any database commands employing a query language of the database, wherein each item referenced in a statement is stored separately from a database table associated with the item;

receiving each of the at last one query language statement, wherein each query language statement is associated with an item;

associating the for each file system statement with the transaction;

if the file system statement includes open, read and close operations:

creating a transaction as part of an open operation, wherein the transaction is managed separately from the database server;

obtaining a read lock on a data table row associated with the associated item for the file system statement;

performing a read operation in the context of the transaction;

committing the transaction as part of a close operation;

if the file system statement includes open, write and close operations:

creating a transaction as part of an open operation, wherein the transaction is managed separately from the database server;

obtaining a write lock on a data table row associated with the associated item for the file system statement;

performing a write operation in the context of the transaction;

committing the transaction as part of a close operation;

for each query language statement, starting a transaction on the database server updating fields associated with the item in the query language statement and sending an updategram to the database server;

~~in response to receiving the file system statement that is independent of any database application programming interface requests, starting the transaction by acquiring either a read lock or a write lock on a data table row corresponding to the item.~~

2. (Currently Amended) The method of claim 1, ~~comprising starting the transaction by acquiring one of a read lock and a write lock on a~~ wherein the data table row [[that]] includes a user defined type corresponding to the item.

3. (Currently Amended) The method of claim 1, ~~further comprising associating a second statement with the transaction~~ wherein each query language statement is a T-SQL statement.

4. (Currently Amended) The method of claim [[3]]1, ~~comprising associating the second statement with the transaction, the second statement being another file system statement~~ wherein transactions created for file system statements are managed by a storage platform.

5. (Currently Amended) The method of claim [[3]]1, ~~further comprising associating the second statement with the transaction, the second statement being a transactional query language statement~~ receiving a transaction context for file system operations and performing at least one of a read lock and a write lock consistent with the received transaction context.

6. (Currently Amended) The method of claim 1, wherein ~~starting~~ creating the transaction comprises:

determining whether ~~starting~~ creating the transaction will result in a conflict;

if ~~starting~~ creating the transaction will result in a conflict, then resolving the conflict according to a conflict resolution scheme; and

if ~~starting~~ creating the transaction will not result in a conflict, then starting the transaction.

7. (Original) The method of claim 1, wherein acquiring the read lock on the row comprises acquiring a read committed view of the row.
8. (Original) The method of claim 1, wherein acquiring the write lock on the row comprises acquiring a write lock that will prevent another transaction from accessing the row while the transaction is being processed.
9. (Original) The method of claim 1, wherein acquiring the write lock on the row comprises acquiring a write lock that will prevent a non-transacted file system statement from accessing the row while the transaction is being processed.
10. (Original) The method of claim 1, wherein acquiring the write lock on the row comprises acquiring a write lock that will prevent another statement within the transaction from writing to the row.
11. (Original) The method of claim 1, wherein acquiring the write lock on the row comprises acquiring a write lock that will enable another statement within the transaction to read from the row.
12. (Original) The method of claim 1, comprising starting the transaction by acquiring one of a read lock and a write lock on a filestream field of the row.
13. (Canceled)
14. (Currently Amended) A method for locking and isolation of a file system statement, the method comprising:
receiving the file system statement comprising a call to open an item, a call to read from the item, and a call to close the item, the file system statement being independent of any database commands employing a query language of [[the]] a database;

in response to receiving the file system statement that is independent of any database application programming interface requests, determining if a read lock is available for a row of a data table corresponding to the item;

if the read lock is not available for the row of the data table corresponding to the item, then failing the open; and

if the read lock is available for the row of the data table corresponding to the item, ~~then:~~

performing a shared open for the item;
acquiring the read lock on the row.

15. (Previously Presented) The method of claim 14, comprising determining if the read lock is available for a row of a data table that includes a user defined type corresponding to the item.

16. (Original) The method of claim 14, wherein acquiring the read lock on the row comprises acquiring a read committed view of the row.

17. (Previously Presented) The method of claim 14, comprising acquiring the read lock on a filestream field of the row.

18. (Canceled)

19. (Currently Amended) A method for locking and isolation of a file system statement, the method comprising:

receiving the file system statement comprising a call to open an item, a call to write to the item, and a call to close the item, the file system statement being independent of any database commands employing a query language of ~~[[the]]~~ a database;

in response to receiving the file system statement that is independent of any database application programming interface requests, determining if a write lock is available for a row of a data table corresponding to the item;

if the write lock is not available for the row of the data table corresponding to the item, then failing the open; and

if the write lock is available for the row of the data table corresponding to the item[[,]]; [[then]]

performing an exclusive open for the item;

acquiring the write lock on the row.

20. (Previously Presented) The method of claim 19, comprising determining if the write lock is available for a row of a data table that includes a user defined type corresponding to the item.

21. (Original) The method of claim 19, wherein acquiring the write lock on the row comprises acquiring a write lock that will prevent another statement from accessing the row while the statement is being processed.

22. (Previously Presented) The method of claim 19, comprising starting the transaction by acquiring the write lock on a filestream field of the row.

23. (Canceled)

24. (Currently Amended) A system for executing a file system statement, the system comprising:

a processor;

a relational data engine comprising a data table having a row corresponding to the item;

a storage platform built on the relational data engine, the storage platform comprising means for receiving the file system statement, means for associating the file system statement with the transaction, and means for starting the transaction in response to receiving the file system statement by acquiring either a read lock or a write lock on the row, the file system statement comprising a call to open an item, a call to read from the item or to write to the

item, and a call to close the item, the file system statement being independent of any database commands employing a query language of [[the]] a database.

25. (Original) The system of claim 24, wherein the row corresponding to the item includes a user defined type corresponding to the item.

26. (Original) The system of claim 24, wherein the storage platform further comprises means for associating a second statement with the transaction.

27. (Original) The system of claim 26, wherein the second statement is another file system statement.

28. (Original) The system of claim 26, wherein the second statement is a transactional query language statement.

29. (Previously Presented) The system of claim 24, wherein the means for starting the transaction comprises means for performing the following steps:

determining whether starting the transaction will result in a conflict;
if starting the transaction will result in a conflict, then resolving the conflict according to a conflict resolution scheme; and
if starting the transaction will not result in a conflict, then starting the transaction.

30. (Original) The system of claim 24, wherein the read lock provides a read committed view of the row.

31. (Original) The system of claim 24, wherein the write lock prevents another transaction from accessing the row while the transaction is being processed.

32. (Original) The system of claim 24, wherein the write lock prevents a non-transacted file system statement from accessing the row while the transaction is being processed.

33. (Original) The system of claim 24, wherein the write lock prevents another statement within the transaction from writing to the row.
34. (Original) The system of claim 24, wherein the write lock enables another statement within the transaction to read from the row.
35. (Original) The system of claim 24, wherein the row comprises a filestream field.